

Title (en)
Self-drilling anchoring element

Title (de)
Selbstbohrendes Befestigungselement

Title (fr)
Élément de fixation auto-foreur

Publication
EP 2251526 A3 20160907 (DE)

Application
EP 10160697 A 20100422

Priority
DE 102009002951 A 20090508

Abstract (en)
[origin: EP2251526A2] The element (11) i.e. roof bolt, has a hollow cylindrical receiving body (12), which includes a drilling head (16) at an end (13). The receiving body includes a hardener (27) and a reactive resin (28), which is supported from each other separately. The reactive resin includes two different formulations (29, 30) that are arranged in the receiving body. One of the formulations hardens rapidly in a mixed condition with the hardener located in a setting direction (S) of a fastening element, and other formulation hardens slower in the mixed condition with the hardener.

IPC 8 full level
E21D 20/02 (2006.01); **E21D 21/00** (2006.01)

CPC (source: EP US)
E21D 20/02 (2013.01 - EP US); **E21D 20/026** (2013.01 - EP US); **E21D 21/00** (2013.01 - EP US); **E21D 21/0053** (2016.01 - EP US)

Citation (search report)

- [YD] US 4055051 A 19771025 - FINNEY JAMES LEE
- [Y] US 4601614 A 19860722 - LANE WILLIAM L [US], et al
- [Y] EP 0163019 A1 19851204 - HILTI AG [LI]
- [Y] US 6468010 B2 20021022 - SAGER LUTZ ACHIM [DE], et al

Cited by
WO2022136237A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

Designated extension state (EPC)
AL BA ME RS

DOCDB simple family (publication)
EP 2251526 A2 20101117; EP 2251526 A3 20160907; EP 2251526 B1 20171220; AU 2010201788 A1 20101125; AU 2010201788 B2 20120419; CA 2703432 A1 20101108; DE 102009002951 A1 20101111; PL 2251526 T3 20180731; RU 2010118034 A 20111120; US 2010284762 A1 20101111; ZA 201003259 B 20110428

DOCDB simple family (application)
EP 10160697 A 20100422; AU 2010201788 A 20100504; CA 2703432 A 20100507; DE 102009002951 A 20090508; PL 10160697 T 20100422; RU 2010118034 A 20100506; US 79990310 A 20100503; ZA 201003259 A 20100507